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TECH CENTER 1600/2900

RAW SEQUENCE LISTING

DATE: 11/08/2000

PATENT APPLICATION: US/09/522,334

TIME: 10:46:48

Input Set : A:\4257-0018.30-SEQLIST.TXT

Output Set: N:\CRF3\11082000\I522334.raw

ENTERED

```
4 <110> APPLICANT: Wagner, Ky
5 Mathews, Helena
6 Liu, Xing Liang
7 Waggoner, Wency J.
9 <120> TITLE OF INVENTION: TRAIT-ASSOCIATED GENE IDENTIFICATION
10 METHOD
12 <130> FILE REFERENCE: 4257-0018.30
14 <140> CURRENT APPLICATION NUMBER: 09/522,334
15 <141> CURRENT FILING DATE: 2000-03-09
17 <150> PRIOR APPLICATION NUMBER: US 60/124,232
18 <151> PRIOR FILING DATE: 1999-03-12
20 <160> NUMBER OF SEQ ID NOS: 28
22 <170> SOFTWARE: FastSEQ for Windows Version 4.0
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 1361
26 <212> TYPE: DNA
27 <213> ORGANISM: Artificial Sequence
29 <220> FEATURE:
30 <223> OTHER INFORMATION: modified enhancer
32 <400> SEQUENCE: 1
33 caacatggtg gagcagcaca ctctcgtcta ctccaagaat atcaaagata cagtctcaga 60
34 agaccagagg gctattgaga cttttcaaca aagggttaata tcgggaaacc tcctcggatt 120
35 ccattgceca gctatctgtc acttcatoga aaggacagta gaaaaggaa atggtctcta 180
36 caaatgccat cattgcgata aaggaaaaggc tatcgttcaa gatgcctcta ccgacagtgg 240
37 tcccaaatgat ggacccccac ccacgaggaa catcgtggaa aaagaagacg ttccaaccac 300
38 gtcttcaaa caagtggatt gatgtgatat ctagatcccc aacatgggtg agcacgacac 360
39 tctcgtctac tccaagaata tcaaagatac agtctcagaa gaccagaggg ctattgagac 420
40 ttttcaacaa agggtaatat cgggaaacct cctcggattc cattgcccag ctatctgtca 480
41 cttcatcgaa aggacagtag aaaaggaaaga tggcttctac aaatgccatc attgcgataa 540
42 aggaaaggct atcgttcaag atgcctctac cgacagtggg cccaaagatg gacccccacc 600
43 cacyaggaac atcgtggaaa aagaagacgt tccaaccacg tcttcaaaagc aagtggattg 660
44 atgtgatata tagatcccc acatggtgga gcacgacact ctctctact ccaagaatat 720
45 caaagataca gtctcagaag accagagggc tattgagact ttccaacaaa gggtaatatc 780
46 gggaaacctc ctcgatttcc attgccacgc tatctgtcac ttcacgaaa ggacagtaga 840
47 aaaggaagat ggcttctaca aatgccatca ttgcgataaa ggaaaggcta tcgttcaaga 900
48 tgcctctacc gacagtggc ccaaagatgg acccccaccc acgagggaaca tcgtggaaaa 960
49 agaagacgtt ccaaccacgt cttcaaagca agtggattga tytgatatct agatccccc 1020
50 catggtggag cagcagactc tcgtctactc caagaatata aaagatacag tctcagaaga 1080
51 ccagagggct attgagactt ttcaacaaaag ggtaatatcg ggaaacctcc tcggattcca 1140
52 ttgccagct atctgtcact tcacgaaaag gacagttaga aaygaagatg gcttctacaa 1200
53 atgccatcat tgcgataaag gaaaggctat cgttcaagat gcctctaccg acagtggctc 1260
54 caaayatyga cccccacca cgaggaacat cgtggaaaaa gaagacgttc caaccacgtc 1320
55 ttcaagcaa gtggattgat gtgatatcta gatccgaaac t 1361
57 <210> SEQ ID NO: 2
58 <211> LENGTH: 202
59 <212> TYPE: DNA
60 <213> ORGANISM: Artificial Sequence
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62 <220> FEATURE:
63 <223> OTHER INFORMATION: enhancer fragment
65 <400> SEQUENCE: 2
66 agctatctgt cacttcacgt aaaggacagt agaaaaggaa gatggcttct acaaatgcca      60
67 tcattgcgat aaaggaaagg ctatcgttca agatgcctct accgacagtg gtcccaaaga      120
68 tggaccccca cccacaggga acatcgtgga aaaagaagac gtccaacca cgtcttcaaa      180
69 gcaagtggat tgatgtgata tc                                          202
71 <210> SEQ ID NO: 3
72 <211> LENGTH: 129
73 <212> TYPE: DNA
74 <213> ORGANISM: Artificial Sequence
76 <220> FEATURE:
77 <223> OTHER INFORMATION: enhancer fragment
79 <400> SEQUENCE: 3
80 caacatgggtg gagcagaca ctctcgtcta ctccaagaat atcaaagata cagtctcaga      60
81 agaccagagg gctattgaga cttttcaaca aagggttaata tcgggaaacc tcctcggatt      120
82 ccattgccc                                          129
84 <210> SEQ ID NO: 4
85 <211> LENGTH: 7
86 <212> TYPE: DNA
87 <213> ORGANISM: Artificial Sequence
89 <220> FEATURE:
90 <223> OTHER INFORMATION: enhancer fragment
92 <400> SEQUENCE: 4
93 agatccc                                          7
95 <210> SEQ ID NO: 5
96 <211> LENGTH: 313
97 <212> TYPE: DNA
98 <213> ORGANISM: Artificial Sequence
100 <220> FEATURE:
101 <223> OTHER INFORMATION: promoter fragment
103 <400> SEQUENCE: 5
104 agctggcttg tggggaccag acaaaaaagg aatgggtgcag aattgttagg cgcacctacc      60
105 aaaagcatct ttgcctttat tgcaaaagata aagcagattc ctctagtaca agtggggaac      120
106 aaaataacgt ggaaaagagc tgtcctgaca gcccactcac taatgcgtat gacgaacgca      180
107 gtgacgacca caaaagaatt ccctctatat aagaaggcat tcattcccat ttgaaggatc      240
108 atcagatact gaaccaatat ttctcactct aagaaattaa gagctttgta ttcttcaatg      300
109 agaggctaag acc                                          313
111 <210> SEQ ID NO: 6
112 <211> LENGTH: 207
113 <212> TYPE: DNA
114 <213> ORGANISM: Artificial Sequence
116 <220> FEATURE:
117 <223> OTHER INFORMATION: enhancer fragment
119 <400> SEQUENCE: 6
120 gtcaacatcg agcagctggc ttgtggggac cagacaaaaa aggaatgggtg cagaattggt      60
121 aggcgcacct accaaaagca tctttgccct tattgcaaag ataaagcaga ttcctctagt      120
122 acaagtgggg aacaaaataa cgtggaaaag agctgtcctg acagcccact cactaatgcg      180
123 tatgacyaac gcagtgcga ccacaaa                                          207

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125 <210> SEQ ID NO: 7
126 <211> LENGTH: 250
127 <212> TYPE: DNA
128 <213> ORGANISM: Artificial Sequence
130 <220> FEATURE:
131 <223> OTHER INFORMATION: enhancer fragment
133 <400> SEQUENCE: 7
134 gagatcttga gccaatcaaa gaggagtgat gtagacctaa agcaataaty gagccatgac      60
135 gtaagggtctt acgccattac gaaataatta aaggtctgatg tgacctgtcg gtctctcaga      120
136 acctttacttt tttatatattg gcgtgtatatt ttaaatttcc acggcaatga cgatgtgacc      180
137 tgtgcatccg ctttgccat aaataagttt tagtttgtat tgatcgacac gatcgagaag      240
138 acacggccat                                     250
140 <210> SEQ ID NO: 8
141 <211> LENGTH: 360
142 <212> TYPE: DNA
143 <213> ORGANISM: Artificial Sequence
145 <220> FEATURE:
146 <223> OTHER INFORMATION: promoter fragment
148 <400> SEQUENCE: 8
149 ttctgtccaca gacatcaaca tcttatcgtc ctttgaagat aagataataa tyttgaagat      60
150 aagagtggga gccaccacta aaacattgct ttgtcaaaag ctaaaaaaga tgatgccgga      120
151 cagccacttg tgtgaagcat gtgaagccgg tccctccact aagaaaaatta gtgaagcatc      180
152 ttccagtggc cctccactc acagctcaat cagtgaagca caggacgaag gaaatgacgt      240
153 aagccatgac gtctaatccc acaagaattt ctttatataa ggaacacaaa tcagaaggaa      300
154 gagatcaatc gaaatcaaaa tcggaatcga aatcaaaaac ggaatcgaaa tctctcatct      360
156 <210> SEQ ID NO: 9
157 <211> LENGTH: 24
158 <212> TYPE: DNA
159 <213> ORGANISM: Artificial Sequence
161 <220> FEATURE:
162 <223> OTHER INFORMATION: oligonucleotide primer
164 <400> SEQUENCE: 9
165 agcggataac aatttcacac agga                                     24
167 <210> SEQ ID NO: 10
168 <211> LENGTH: 20
169 <212> TYPE: DNA
170 <213> ORGANISM: Artificial Sequence
172 <220> FEATURE:
173 <223> OTHER INFORMATION: oligonucleotide primer
175 <400> SEQUENCE: 10
176 ttatttcttg agggcctcga                                     20
178 <210> SEQ ID NO: 11
179 <211> LENGTH: 20
180 <212> TYPE: DNA
181 <213> ORGANISM: Artificial Sequence
183 <220> FEATURE:
184 <223> OTHER INFORMATION: oligonucleotide primer
186 <400> SEQUENCE: 11
187 cggcaatgta ccagctgata                                     20

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189 <210> SEQ ID NO: 12
190 <211> LENGTH: 19
191 <212> TYPE: DNA
192 <213> ORGANISM: Artificial Sequence
194 <220> FEATURE:
195 <223> OTHER INFORMATION: oligonucleotide primer
197 <400> SEQUENCE: 12
198 gatccccaac atggtggag 19
200 <210> SEQ ID NO: 13
201 <211> LENGTH: 21
202 <212> TYPE: DNA
203 <213> ORGANISM: Artificial Sequence
205 <220> FEATURE:
206 <223> OTHER INFORMATION: oligonucleotide primer
208 <400> SEQUENCE: 13
209 cacatcaatc cacttgc ttt g 21
211 <210> SEQ ID NO: 14
212 <211> LENGTH: 20
213 <212> TYPE: DNA
214 <213> ORGANISM: Artificial Sequence
216 <220> FEATURE:
217 <223> OTHER INFORMATION: oligonucleotide primer
219 <400> SEQUENCE: 14
220 actacgatac gggagggtt 20
222 <210> SEQ ID NO: 15
223 <211> LENGTH: 20
224 <212> TYPE: DNA
225 <213> ORGANISM: Artificial Sequence
227 <220> FEATURE:
228 <223> OTHER INFORMATION: oligonucleotide primer
230 <400> SEQUENCE: 15
231 ctggcgtaat agcgaagagg 20
233 <210> SEQ ID NO: 16
234 <211> LENGTH: 20
235 <212> TYPE: DNA
236 <213> ORGANISM: Artificial Sequence
238 <220> FEATURE:
239 <223> OTHER INFORMATION: oligonucleotide primer
241 <400> SEQUENCE: 16
242 tgacatgctc caaatccaa 20
244 <210> SEQ ID NO: 17
245 <211> LENGTH: 20
246 <212> TYPE: DNA
247 <213> ORGANISM: Artificial Sequence
249 <220> FEATURE:
250 <223> OTHER INFORMATION: oligonucleotide primer
252 <400> SEQUENCE: 17
253 cttggcattg ggatcaaaact 20
255 <210> SEQ ID NO: 18

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256 <211> LENGTH: 22
257 <212> TYPE: DNA
258 <213> ORGANISM: Artificial Sequence
260 <220> FEATURE:
261 <223> OTHER INFORMATION: oligonucleotide primer
263 <400> SEQUENCE: 18
264 ttctcttcac agatccgagt ca                22
266 <210> SEQ ID NO: 19
267 <211> LENGTH: 20
268 <212> TYPE: DNA
269 <213> ORGANISM: Artificial Sequence
271 <220> FEATURE:
272 <223> OTHER INFORMATION: oligonucleotide primer
274 <400> SEQUENCE: 19
275 ttctccacac tgcagattcg                20
277 <210> SEQ ID NO: 20
278 <211> LENGTH: 20
279 <212> TYPE: DNA
280 <213> ORGANISM: Artificial Sequence
282 <220> FEATURE:
283 <223> OTHER INFORMATION: oligonucleotide primer
285 <400> SEQUENCE: 20
286 gaggattgcc caaaaccata                20
288 <210> SEQ ID NO: 21
289 <211> LENGTH: 20
290 <212> TYPE: DNA
291 <213> ORGANISM: Artificial Sequence
293 <220> FEATURE:
294 <223> OTHER INFORMATION: oligonucleotide primer
296 <400> SEQUENCE: 21
297 ttttgggtgc aaaaacatca                20
299 <210> SEQ ID NO: 22
300 <211> LENGTH: 20
301 <212> TYPE: DNA
302 <213> ORGANISM: Artificial Sequence
304 <220> FEATURE:
305 <223> OTHER INFORMATION: oligonucleotide primer
307 <400> SEQUENCE: 22
308 taatacgact cactataggg                20
310 <210> SEQ ID NO: 23
311 <211> LENGTH: 22
312 <212> TYPE: DNA
313 <213> ORGANISM: Artificial Sequence
315 <220> FEATURE:
316 <223> OTHER INFORMATION: oligonucleotide primer
318 <400> SEQUENCE: 23
319 cgaggatatg aaatctcttg cc                22
321 <210> SEQ ID NO: 24
322 <211> LENGTH: 21

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VERIFICATION SUMMARY

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